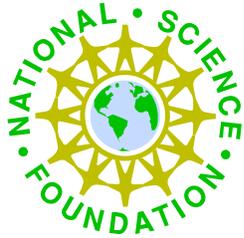


Nuclear Physics FY2007

- Physics Division: up 6+%
- NSCL operations: +\$1M
- Nuclear Theory up 5%
 - Continuing to implement NSAC theory recommendations
- Nuclear Experiment flat
- Joint NSF/DOE DUSEL R&D
- CAREER awards
 - Silas Beane (New Hampshire)
 - Harald Griesshammer (George Washington U)
 - +1 more



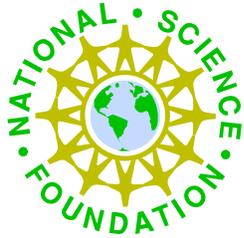
FY2007 MPS Budget Request (\$M)

Mathematical and Physical Sciences Funding

(Dollars in Millions)

	FY 2006 Actual	FY 2007 Request	FY 2008 Request	Change over FY 2007 Request	
				Amount	Percent
Astronomical Sciences	\$199.75	\$215.11	\$232.97	\$17.86	8.3%
Chemistry	180.70	191.10	210.54	19.44	10.2%
Materials Research	242.59	257.45	282.59	25.14	9.8%
Mathematical Sciences	199.52	205.74	223.47	17.73	8.6%
Physics	234.15	248.50	269.06	20.56	8.3%
Multidisciplinary Activities	29.9	32.40	34.37	1.97	6.1%
Total, MPS	\$1,086.61	\$1,150.30	\$1,253.00	\$102.70	8.9%

Totals may not add due to rounding.

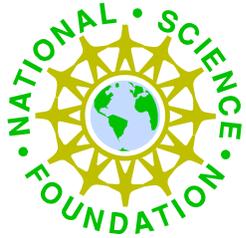


FY2007 R&RA Budget Request (\$M)

Research and Related Activities (Dollars in Millions)

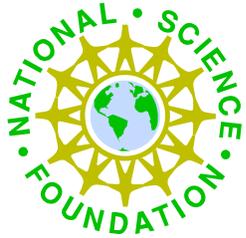
	FY 2006 Actual	FY 2007 Request	FY 2008 Request	Change over FY 2007 Request	
				Amount	Percent
Biological Sciences	\$580.90	\$607.85	\$633.00	\$25.15	4.1%
Computer and Information Science and Engineering	496.35	526.69	574.00	47.31	9.0%
Engineering	585.46	628.55	683.30	54.75	8.7%
Geosciences	703.95	744.85	792.00	47.15	6.3%
Mathematical and Physical Sciences	1,086.61	1,150.30	1,253.00	102.70	8.9%
Social, Behavioral and Economic Sciences	201.23	213.76	222.00	8.24	3.9%
Office of Cyberinfrastructure	127.14	182.42	200.00	17.58	9.6%
Office of International Science and Engineering ¹	42.61	40.61	45.00	4.39	10.8%
Office of Polar Programs	390.54	438.10	464.90	26.80	6.1%
Integrative Activities ²	233.30	231.37	263.00	31.63	13.7%
U.S. Arctic Research Commission	1.17	1.45	1.49	0.04	2.8%
Total, Research and Related Activities	\$4,449.25	\$4,765.95	\$5,131.69	\$365.74	7.7%

Totals may not add due to rounding.



People

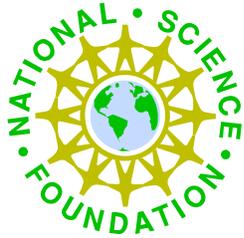
- **NSF Director: Arden Bement**
- **NSF Deputy Director: Kathie Olsen**
- **MPS Assistant Director: T. Chan**
- **Physics Division Director: Joe Dehmer**
- **Nuclear Physics (experiment):**
 - **BDK**
 - **Ani Aprahamian (and astro, underground lab)**
 - **Nuclear Physics (theory): BDK**



Backup Slides

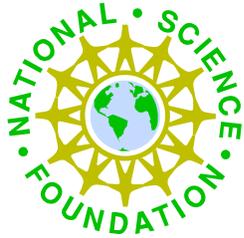
March 8-9 2007

NSAC Meeting



Nuclear Physics at NSF

- Research and Education
 - 200+ faculty
 - 80+ postdocs
 - 200+ graduate students
 - 150+ undergraduates
- University facilities
 - MSU NSCL
 - Tandem/LINAC laboratories
 - FSU
 - Notre Dame
 - Stony Brook
- User group program: DOE/OS/NP is critical partner



Questions via NSAC

- **Quantum Chromodynamics:**
 - *What is the nature of the quark-gluon matter of the early universe and what transitions led to our present world of protons and neutrons?*
 - *Where is the glue that binds quarks into strongly interacting particles, and what are its properties?*
 - *What is the internal landscape of the proton?*
 - *What does QCD predict for the properties of nuclear matter?*
- **Nuclei and Nuclear Astrophysics:**
 - *What binds protons and neutrons into stable nuclei and rare isotopes?*
 - *What is the origin of simple patterns in complex nuclei?*
 - *When and how did the elements from iron to uranium originate?*
 - *What causes stars to explode?*
- **Standard Model:**
 - *What are the masses of neutrinos and how have they shaped the evolution of the universe?*
 - *Why is there more matter than antimatter?*
 - *What are the unseen forces that disappeared from view as the universe cooled?*